# CI System Continuous Rooflight S

Cutting edge technology constructive – energy efficient – aesthetic

Customized Intelligence
Serving the customer is our first priority

# LAMILUX CI System Continuous Rooflight S

**The first thermally separated continuous gabled rooflight with plastic glazing as standard**

**NEW: Complete thermal separation**

Using new materials means we can provide a completely thermally separated design, ensuring the **highest energy efficiency standards in modern industrial and office buildings**.

**NEW: A wide range of glazing**

The high level of energy-saving incident daylight can be **perfectly adapted to the building's use thanks to a wide range of available glazing**.

**NEW: Even more robust and stable**

**The continuous rooflight design can withstand the strongest winds and heaviest snowfall** thanks to innovative system components such as the Bionically Dynamic Tensioning technology (BDT).

*» With the LAMILUX CI System Continuous Rooflight S, we have developed a continuous daylight system designed for gabled roofs on industrial and office buildings using cutting edge technology. Our aim as one of the most experienced manufacturers? A stable and aesthetic design for the energy-efficient and sustainable construction of the future! «*

**Dipl. Ing. Joachim Hessemer,**
Technical Director
LAMILUX daylight elements

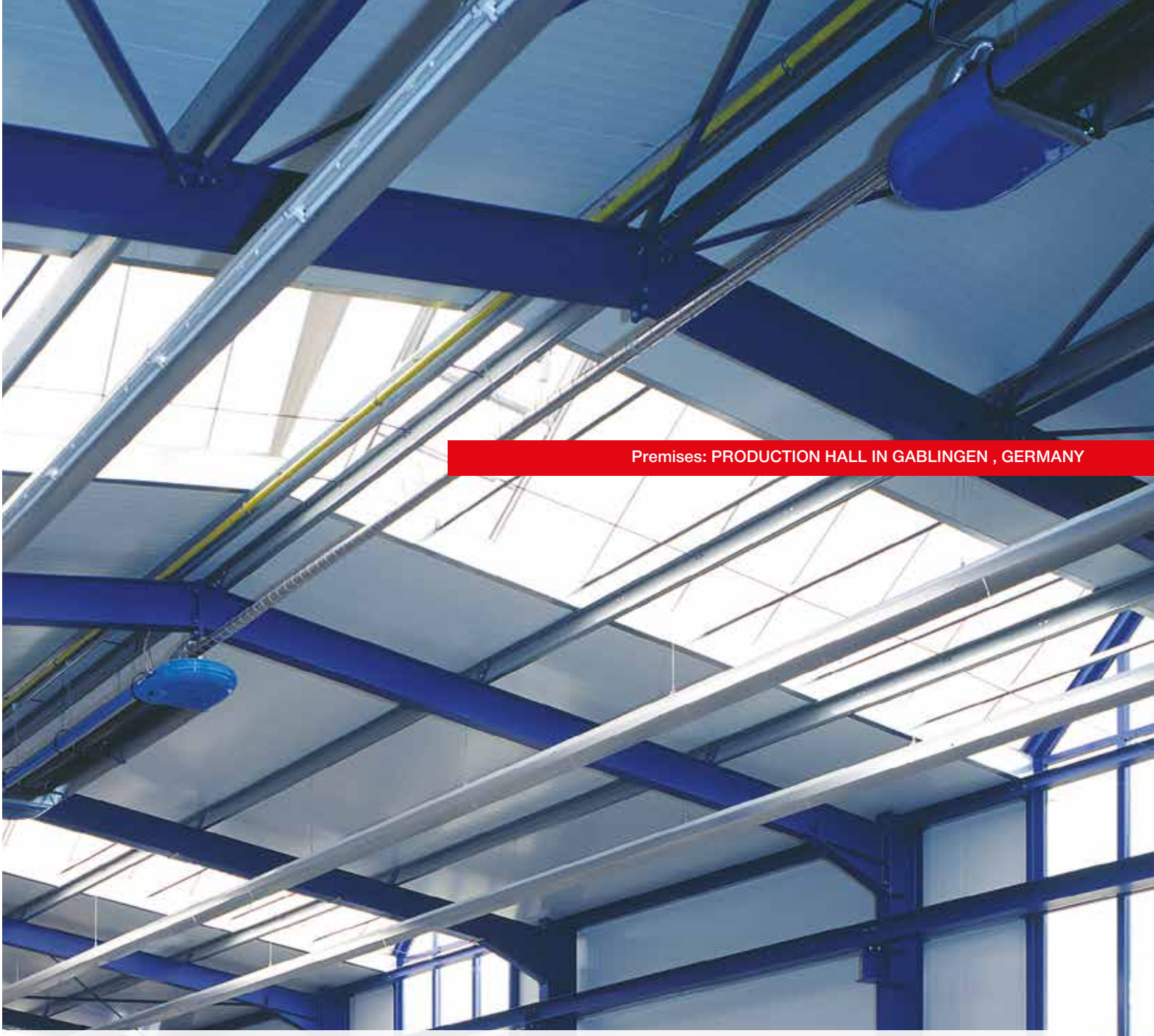
**The LAMILUX CI Philosophy**

Customer value is the reason for our existence and is the focus of our activities. This requires harmony, identity and a balance between customer value and company strategy.

These guiding ideas for our company's actions and our day-to-day relationship with our customers are described in LAMILUX's company philosophy:

**'Customised intelligence – serving the customer is our first priority.'**
This requires outstanding performance and leadership in all areas relevant to customers, particularly in the role of:

- **Leader in quality – for the highest customer benefit**
- **Leader in innovation – for always being ahead in technology**
- **Leader in service – for fast, straightforward, reliable and friendly communication**
- **Leader in expertise – for the best technical and commercial advice on the market**
- **Leader in problem solving – for custom made solutions**



Premises: PRODUCTION HALL IN GABLINGEN , GERMANY

## ENERGY EFFICIENCY

- **NEW:** Thermally separated, self-supporting post and beam design and thermally separated lift systems
- **NEW:** Isothermal Load Converter (ITL) – A component for the use of highly heat-insulating materials at the base point
- Plastic glazing (plate thickness 10 to 32 millimetres) adapted to the building's specific energy requirements with excellent heat transfer coefficients up to 1.2 W/(m²K)
- High levels of energy-saving incident daylight and controllable solar heat input
- Energy-efficient, natural ventilation

## DESIGN

- Architecturally attractive design for gable roofs
- Modern overall impression of future-oriented building

## SAFETY

- **NEW:** Bionically Dynamic Tensioning technology (BDT) in the ridge area for flexible force/stress equalisation in the case of strong winds and heavy snow
- **NEW:** Active Expansion Absorber (AEA) for absorbing expansion between seals and tension belts in the support mullions
- **NEW:** Dynamic Torque Control (DTC) for stress-optimised and safe positioning of the glazing in the lift systems
- **NEW:** Modular lift systems available in various sizes for ideally sized smoke outlet surfaces
- **NEW:** Linear Burn-Out Protection (LBP) to prevent fire spreading on the roof
- Integration of smoke and heat exhaust ventilation systems (SHEVS) and SHEV controls

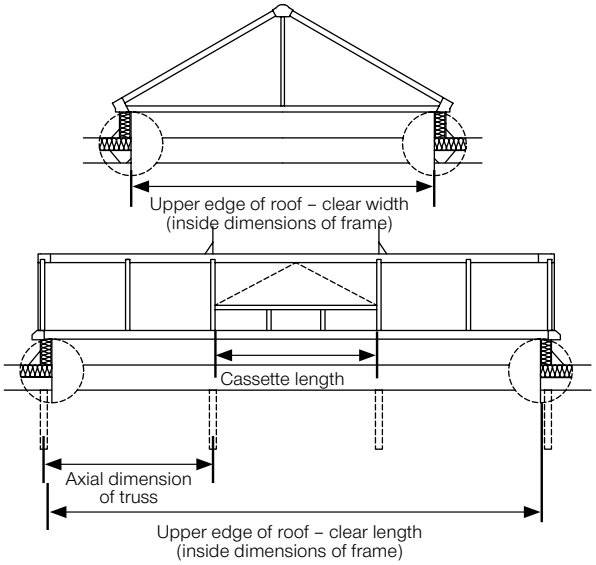
# LAMILUX CI System Continuous Rooflight S

**High-quality components for the energy-conscious and sustainable construction of the future**


**Optimised thermal properties** for consistent heat insulation zones **with no weak spots** provide superior heat protection in all sections throughout the structure: evidence of optimum energy efficiency. LAMILUX calls this **thermal bridge-free** product concept

**TIP: Total Insulated Product.** (in line with ISO 14021)

You can find more detailed technical information on our website at **http://www.lamilux.de**




**For flexible force/stress equalisation in the overall system**

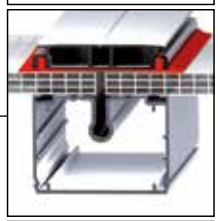
Bionically Dynamic Tensioning technology – BDT | Page 6

**For secure positioning of the glazing in the lift systems**

Dynamic Torque Control – DTC | Page 14

**Non-slipping seals even under high loads**

The Active Expansion Absorber – AEA | Page 7



**The perfect thermal isolation**

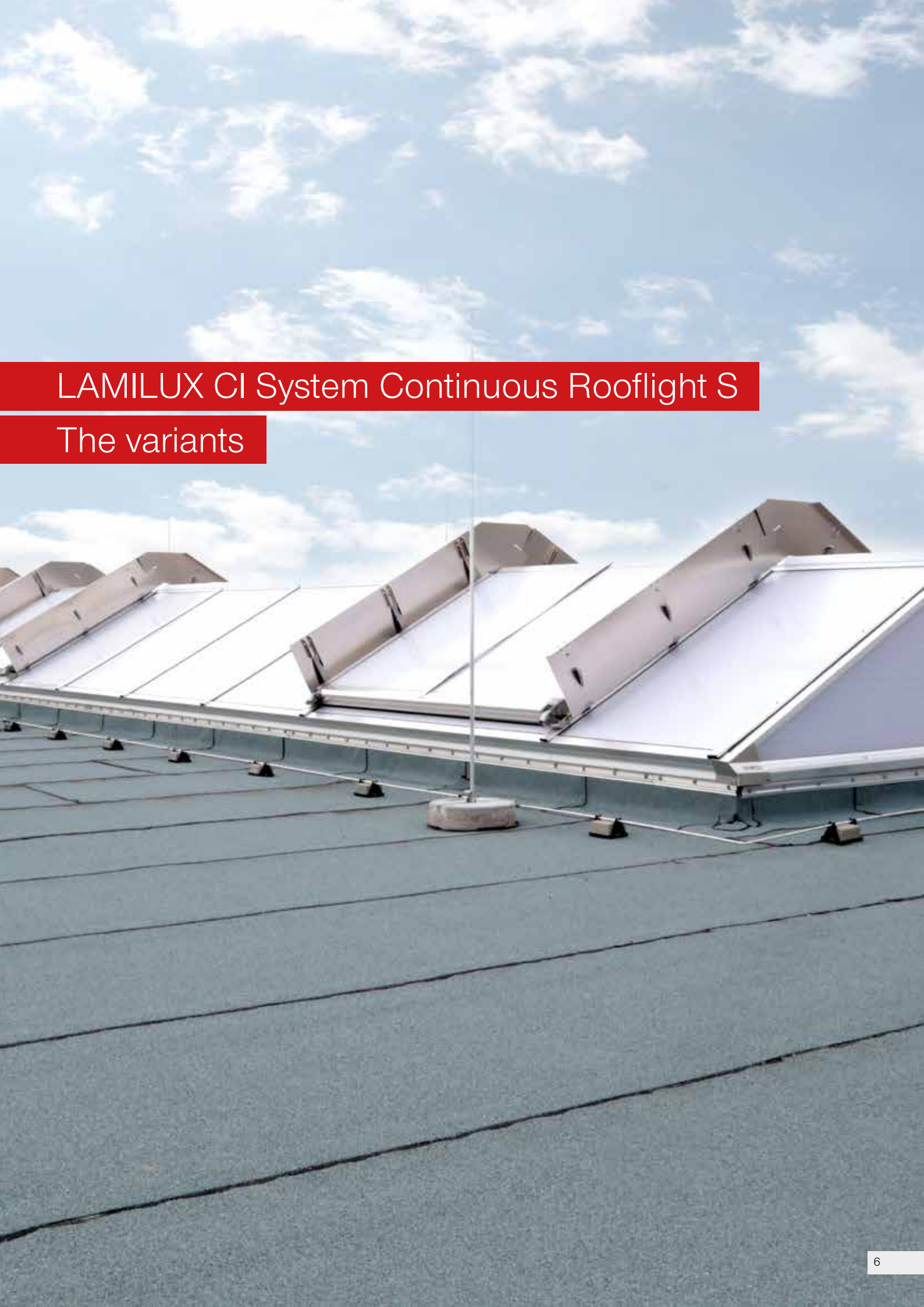
The Isothermal Load Converter – ITL | Page 8

**Preventing fire spreading on roofs in accordance with DIN 18234**

Linear Burn-Through Protection – LBP | Page 10

# LAMILUX CI System Continuous Rooflight S

## The variants



# Flexibility for modern buildings and renovations

**Energy efficiency and modern design, as well as the use of sustainable building elements, dominate new builds and renovations of industrial, sports and exhibition halls. The three variants of the LAMILUX CI System Continuous Rooflight S provide architectural flexibility in both aesthetic and functional planning.**

## LAMILUX CI System Continuous Rooflight $S_{30}$

The gable roof continuous rooflight is designed with an inclination of 30 degrees at the base point. This variant harmonises well with the roofscape. There are no limits to the integration of modular lift systems for SHEVS and ventilation.

## LAMILUX CI System Continuous Rooflight $S_{45}$

The 45 degree variant provides a high level of flexibility when integrating SHEV devices. The steeper shape creates a larger surface for installing lift systems, and therefore also extra smoke and heat exhaust surface.

## LAMILUX CI System Continuous Rooflight $S_{30/60}$

The design of the continuous rooflight in the shape of a saw-tooth roof enables the integration of photovoltaic systems. Photovoltaic modules can be affixed to the wide saw-tooth ridge due to the very supportive framing construction.


# The Bionically Dynamic Tensioning Technology – BDT

**The Bionically Dynamic Tensioning technology (BDT) is a completely new building principle for the ridges of gable roof-shape continuous rooflight designs. The mode of action is based on the ability of nature to produce integrated form and function, and creates flexible force/stress equalisation in the case of heavy loads on the overall structure.**

### The principle

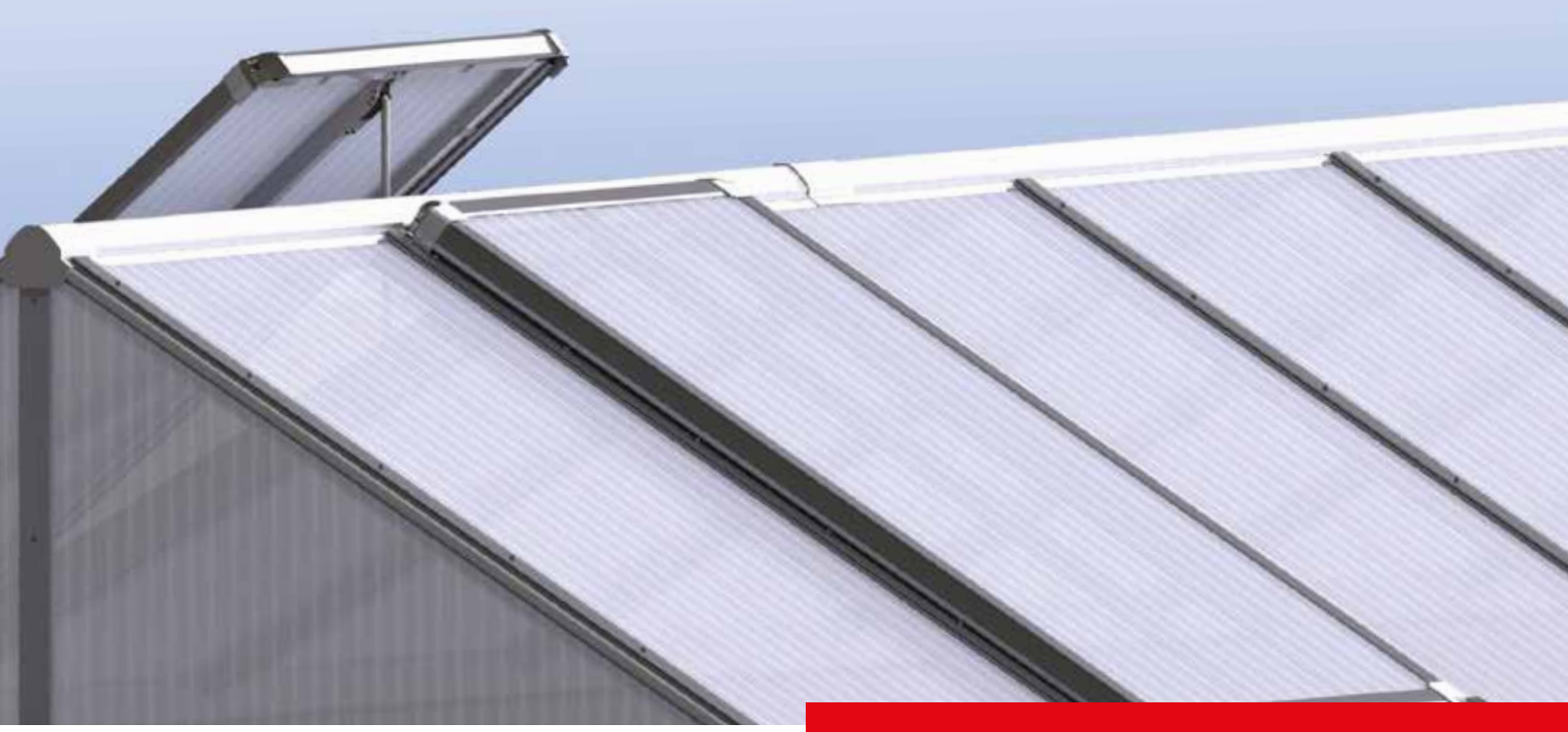
In a hybrid structure, there are rigid, elastic and semi-elastic areas in the ridge in zones made up of several materials. In addition to clamp and static interlocking connectors, components are also connected using friction-weld seals, for example. This creates an elastic and simultaneously resistant flush structure.

### The positive effect

Components are prevented from both excessively drifting apart or being pushed together under vertical and horizontal pressure and tension loads, so that they remain connected within specified motion and displacement tolerances. The continuous rooflight system remains torsionally stable, and thus tight and secure, even when subjected to strong winds and heavy snow.

### BDT – flexible force/stress equalisation

+ Flush connection of the ridge area made up of elastic, rigid and semi-elastic zones
+ Bionic construction principle through the design integrating form and function
+ Continuous rooflight system withstands very strong winds and heavy snow



# The Active Expansion Absorber – AEA

**Non-slipping seals even under high loads**

**The Active Expansion Absorber (AEA) ensures a permanently tightly-sealed connection between the cover strips and the glazing. It prevents the seals slipping in the support mullion area, even under strong wind suction forces and heavy snow.**

### The principle

The Active Expansion Absorber (AEA) compensates for the stresses and strains caused by loads. The seals are also firmly bonded with the cover strips all-round.

### The positive effect

Optimal protection of the structure in snow, ice, wind and excessive heat.

### AEA – Safety aspects in detail

+ The cover strips are equipped with integrated guide rails so that fittings, sun protection systems and maintenance equipment can be affixed
+ Clamping reliability is increased through an extended adhesive area

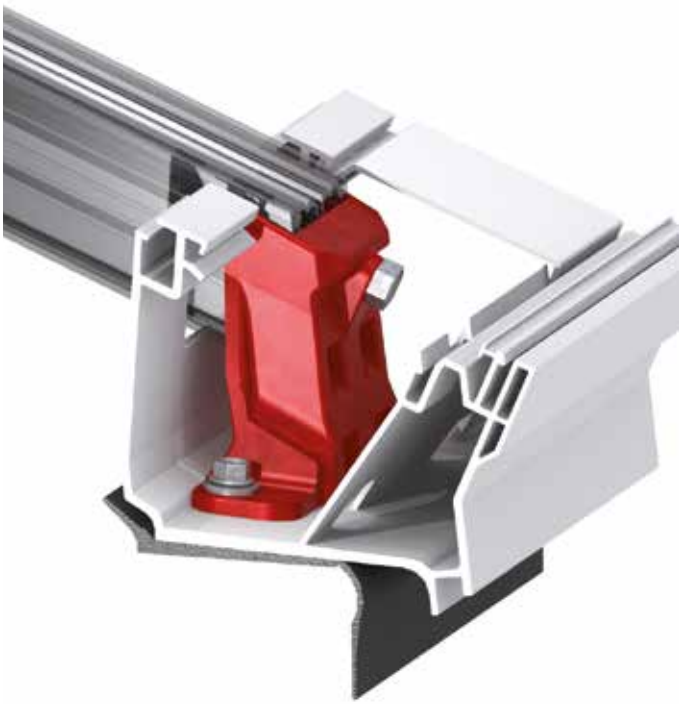
# The Isothermal Load Converter – ITL

**The perfect thermal isolation**

**The Isothermic Load Converter (ITL) is the essential component in the base section of the continuous rooflight that allows you to do away with heat-conductive metallic components.**

### The principle

The Isothermic Load Converter (ITL) channels the load on the continuous rooflight into the supporting structure. As this frees up the base section from loads and stresses, metallic material can be dispensed with and high-quality quality plastic with excellent thermal insulation values used for the base section.



### The positive effect

ITL technology means that we are able to guarantee optimised temperature patterns and thus ensure a minimal risk of condensation on the base profile of the continuous rooflight.

### ITL – Benefit from optimum energy efficiency

+ Excellent $U_f$ values in the base profile and even better thermal insulation
+ Improved load bearing capacity in the base profile
+ Significantly reduced risk of condensation
+ Optimised rebate ventilation
+ Smooth interior with few edges, which ensure less dirt and grime
+ Torsion-resistant box profile cross section

# Active energy management with daylight systems

**The efficient use of energy also shapes modern and sustainable building methods in industrial, office and hall construction. LAMILUX daylight systems are streamlined for energy efficiency – in many different ways:**

- Saving energy through extensive natural incident light
- Preserving energy through outstanding thermal insulation properties
- Controlling energy through intelligently designed controls and automation of the lift systems for natural ventilation and for sun protection facilities
- Yielding energy through integrated or affixed photovoltaic systems

The LAMILUX CI System Continuous Rooflight S is the ultimate statement of our commitment to optimising energy performance standards for building skins, using daylight systems.


**The LAMILUX CI System Continuous Rooflight S is a Total Insulated Product (TIP).**
This means:

- **The inner and outer metallic components, both in the supporting structure and the lift systems, are thermally isolated from one another**
- **Use of the Isothermal Load Converter (ITL) – a component for the use of highly heat-insulating materials at the base point**
- **Glazing with the lowest heat transfer coefficients in plastic glazing**

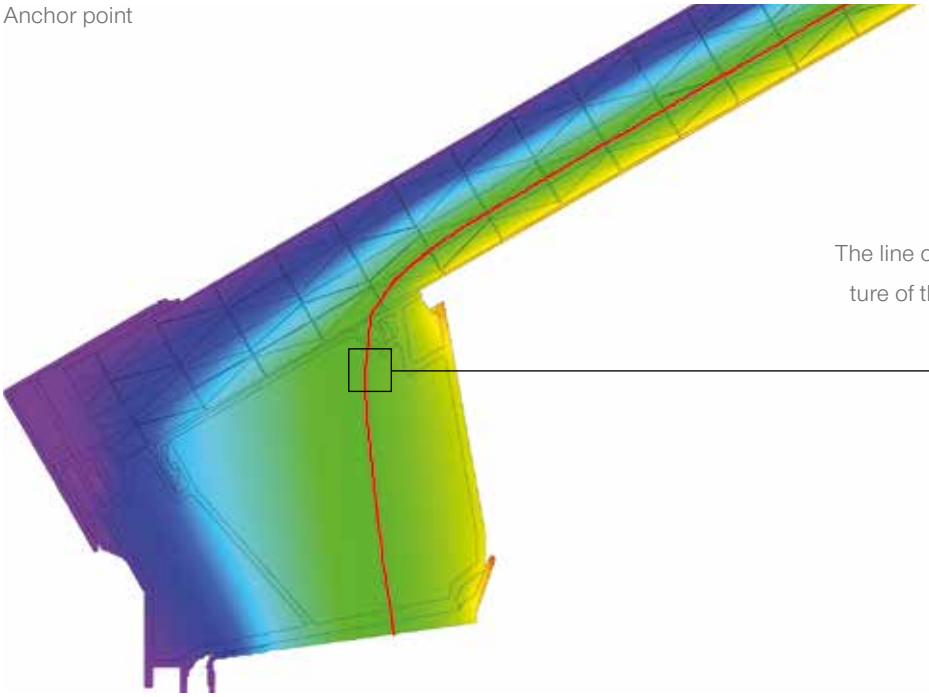
# Optimised isothermal lines to combat condensation

**Isotherm lines describe lines of equal temperature. With the LAMILUX CI System Continuous Rooflight S, the structurally relevant 10°C isotherm line runs at a constant throughout the structure. Our guarantee: a significantly minimised risk of condensate water (condensation) on the inside of the structure.**

**The isotherm lines are determined and defined as follows**

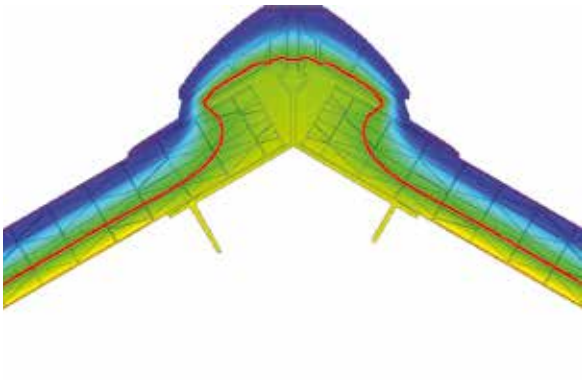
- Standard conditions have been set out to better explain the condensation risk. According to DIN 4108-2, 'Thermal Protection and Energy Economy in Buildings', these are: 20°C internal temperature, -5°C ambient temperature, 50% relative humidity.
- Assuming the standard conditions are in place, condensate water (condensation) always occurs on the inside of the continuous rooflight where it becomes colder than 10°C.
- The better the design of the continuous rooflight, the less cold is allowed to enter the building, and the warmer the surface of the inside of the continuous rooflight.
- If this surface becomes colder than 10°C at any point, this is precisely where condensation occurs. Condensation means a risk of mould and hoarfrost, and therefore potential damage to the building.
- The temperatures inside the structure can be depicted by what are known as isotherms.
- **The line of the 10°C isotherms (the red line in the diagram) provides information on where condensation may occur on the inside of the continuous rooflight, i.e. always where the 10°C isotherms exit the structure.**
- The line of the 10°C isotherms is always inside the structure of the LAMILUX CI System Continuous Rooflight S with corresponding glazing.

Anchor point

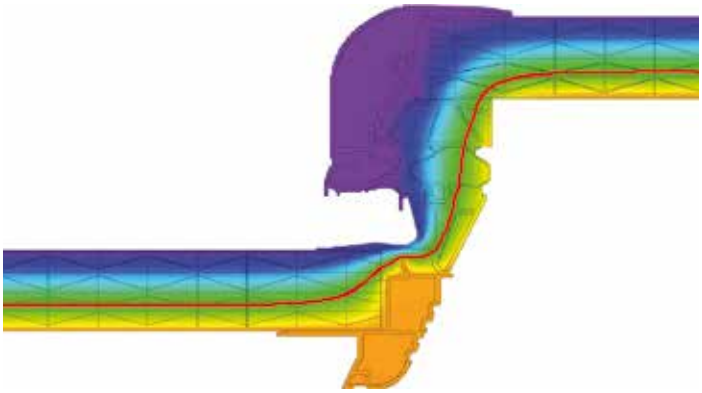


The line of the 10°C isotherms is always inside the structure of the LAMILUX CI-System Continuous Rooflight S with corresponding glazing.

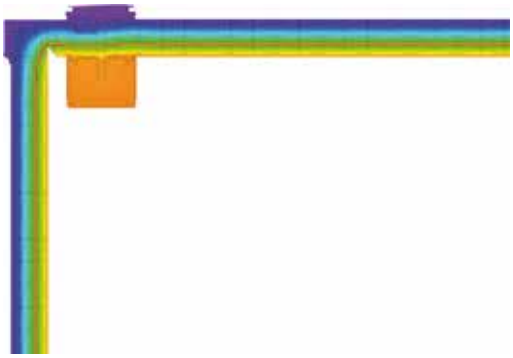
Ridge profile



Eave profile lift

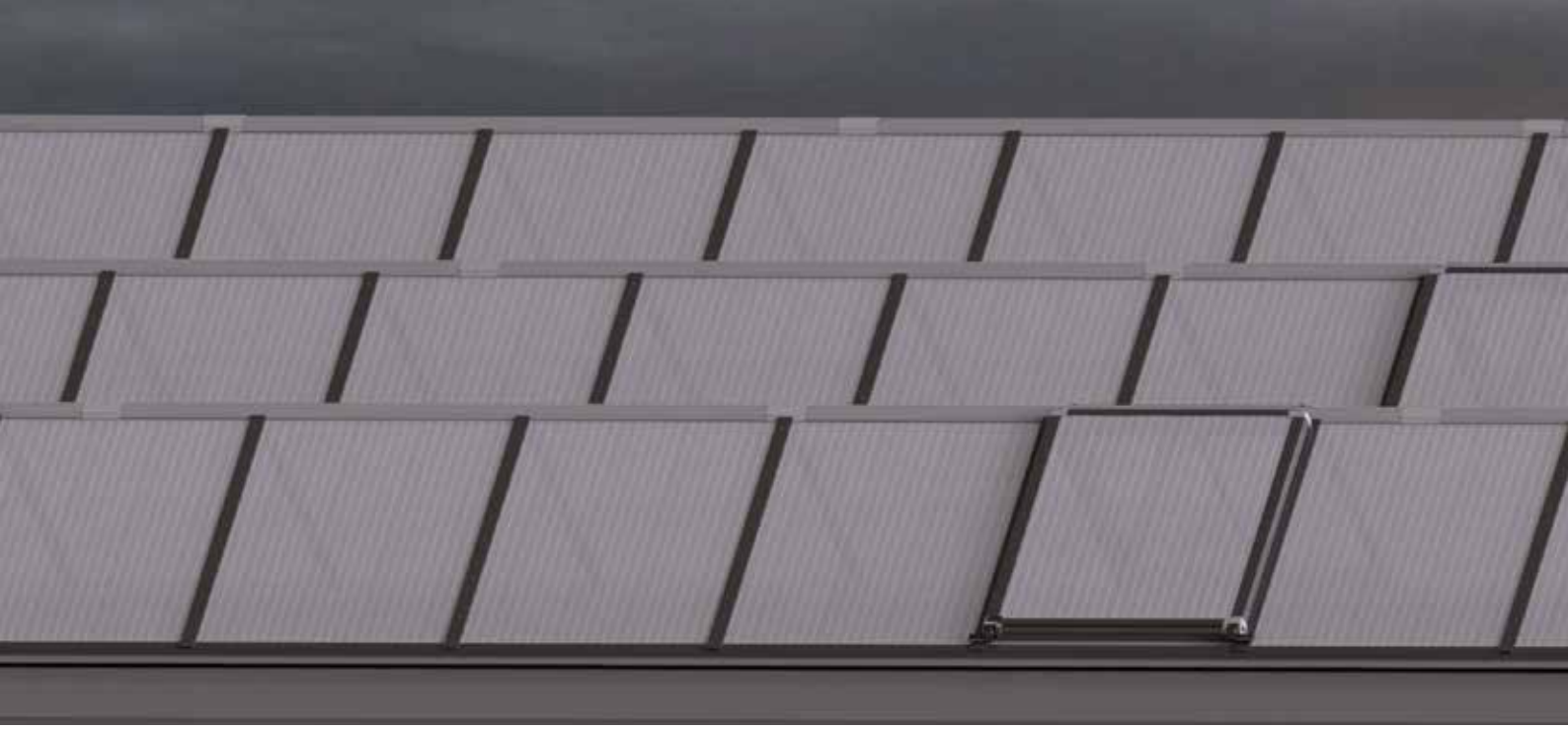


Gable wall profile



Gable base profile

The comprehensive thermal protection technology throughout the structure ensures the best $U_W$ values. The energy efficiency properties have been verified. This ensures that the constant insulation properties in the continuous rooflight profile are documented.



# The Linear Burn-Through Protection – LBP

**Safely preventing fire spreading on roofs – in accordance with DIN 18234**

**Perfectly matched material components in the base profile of the continuous rooflight act against fire spreading on the roof in the case of a fire inside the building – verified in accordance with DIN 18234. With no costly gravel fill at all, the Linear Burn-Through Protection (LBP) prevents the dreaded 'wicking effect' around the skylight opening, and thus also the flames spilling out from the inside to the roof membrane.**

### The principle

Secured to a framing construction, the roof membrane is usually pulled up to the upstand and fed under the continuous rooflight's base section. In the case of a fire inside the building, the roof membrane often ignites on the inside of the upstand and tends to burn though to the outside of the roof like a wick.

Linear Burn-Through Protection (LBP) can be considered as an intelligent system for limiting the spread of fire by roof penetration. The continuous rooflight profile plays an essential role here: it consists of a thermoplastic material that softens around the upstand under high temperatures, placing itself directly over the burning roof rail edge. This seals off the burning joints, cuts off the oxygen supply and extinguishes the flames at this point.

### The positive effect

The LBP prevents flames from spilling out onto the roof. Despite softening due to the high temperatures, the base profile remains stable during the fire, as it is cooled and reinforced by the metal profile of the glass bar.

## LBP – Well-engineered fire safety technology

+ Prevents fire from spreading onto the roof through roof penetration in accordance with specifications in DIN 18232 Part 4
+ Patented technology
+ Means there is no need to place gravel around the continuous rooflight

### Phase 1

The roof membrane is burning like a ‘wick’ towards the exterior of the roof.

### Phase 2

The LBP has now spread over the burning roof membrane and smothered the flames. This prevents burn-through to the exterior of the roof.

# Lift systems for SHEVS and ventilation

**Safety in case of fire, and energy-efficient ventilation**

**The newly developed LAMILUX CI System Continuous Rooflight S lift systems offer a wide range of design options. They can be combined so that they form optimally sized surfaces for smoke and heat extraction and natural ventilation in various building-specific arrangements. In addition, they are designed to be thermally isolated and, in conjunction with a welded seal frame, provide a compact, closed sealing level.**

## Dynamic Torque Control – DTC

**The glazing in the lift systems is positioned securely and optimised for tension thanks to another innovative component in the design of the LAMILUX CI System Continuous Rooflight S – the Dynamic Torque Control (DTC). This results in high stability and reliability even in extreme weather conditions such as strong winds and heavy snow.**

### The principle

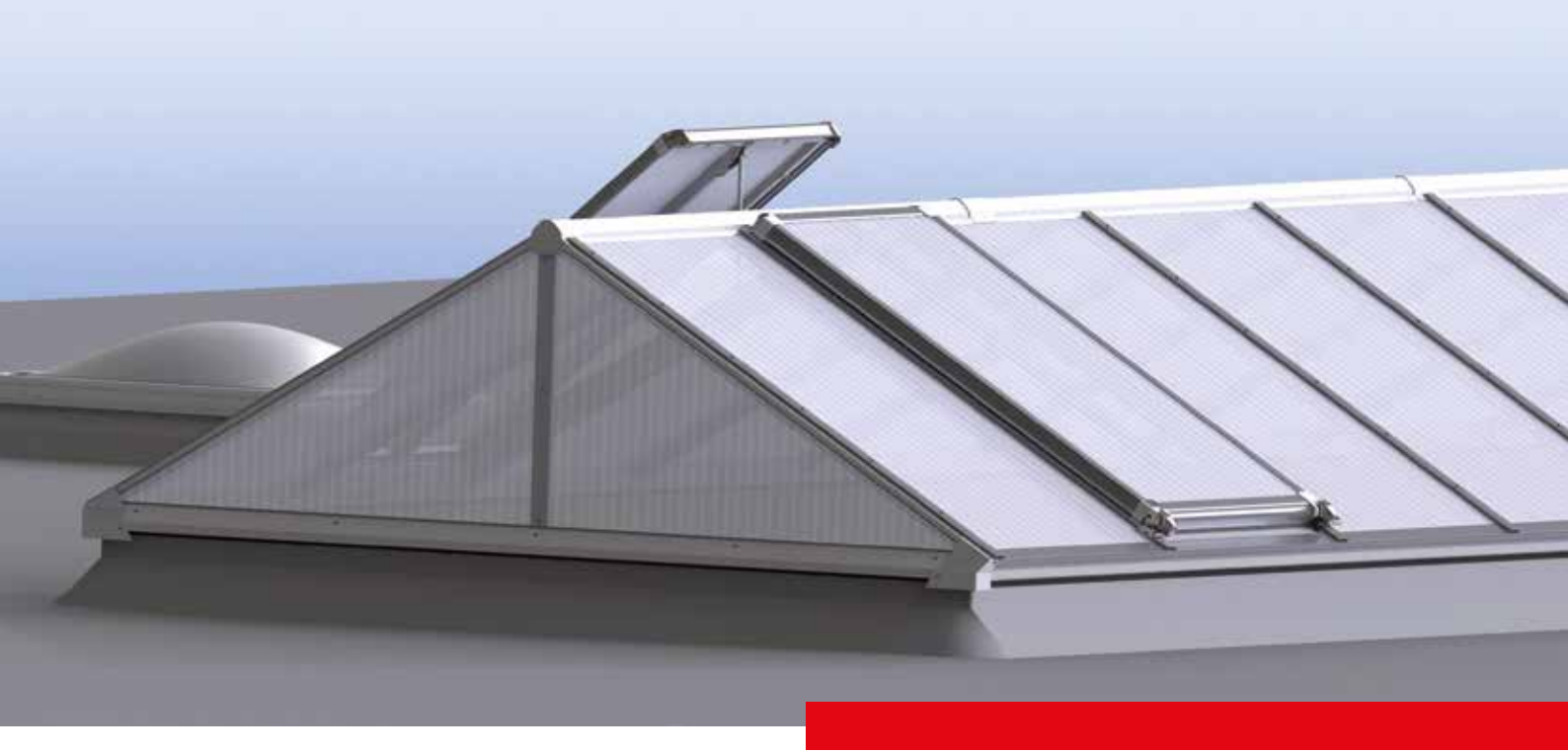
An integrated spring underneath the glass bar in the mounting frame (DTC spring) ensures the glass is well positioned and optimised for tension. This also means that it is secured in position with a specified retention force, even under load.

### The positive effect

The glazing remains optimised for tension in all situations and is well secured, as the acting loads are ideally absorbed and taken up by the mounting frame.

### DTC – Protection in the event of heavy wind loads

+ High lift stability even when open
+ Even better anchorage for the glazing systems



# CI System Ventilation Lift S

**The CI System Ventilation Lift S can be integrated both as an individual lift on one side of the continuous rooflight, and as one on each side. Electric motors (24 volt/230 volt) with a spindle drive or pneumatic drive units with pneumatic cylinders provide manually triggered or control automated opening and closing.**

### Comfort and energy efficiency

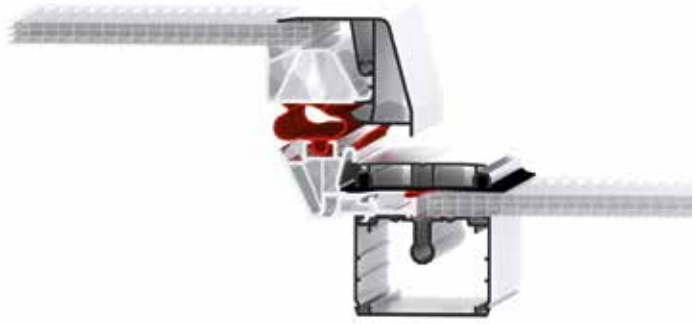
The lift system controls can be automated for energy-efficient ventilation using a wind and rain sensor set as well as additional control components. For example, functions such as fair-weather ventilation and night cooling can be set up using the control matrix.

### Optimal rain impermeability due to 4-sided welded sealing frame

There is an all-round welded multiple seal system in the mounting frame of the lift systems, with a splash lip and an integrated balloon seal.

### The advantages:

+ Optimum insulation
+ Extra safety when installing the continuous rooflight as there is no need to weld separate sealing points, thus eliminating potential failures
+ Guaranteed tight sealing for the lift system through dimensional tolerance alignment in the balloon seal



Triple-tiered sealing system

## Smoke and heat exhaust ventilation systems in line with DIN EN 12101-2

**Smoke and heat exhaust ventilation systems are an essential component of integrated building fire protection concepts.**

They keep escape routes clear of smoke for a long time and allow fire personnel access to the interior of the building due to their effective extraction capabilities. The CI System Smoke Lift S fulfils all requirements of DIN EN 12101-2 in its role as a smoke and heat extraction device.

**Smoke Lift SE30 Single Flap**

## A wide range of lift combinations for market-leading smoke and heat exhaust values

**A new technology means that never before seen SHEV measurements can be achieved in buildings.**

Available in a wide range of combination options to create the ideal, building-specific smoke extraction area, the CI System Smoke Lift S can be integrated as a double or single lift into the continuous rooflight design. In the case of fire, they can be quickly opened via the thermal trigger, thermal and $CO_2$ remote trigger or electrical remote trigger. The SHEVS lift systems can also be used for ventilation, and controlled electrically/pneumatically.

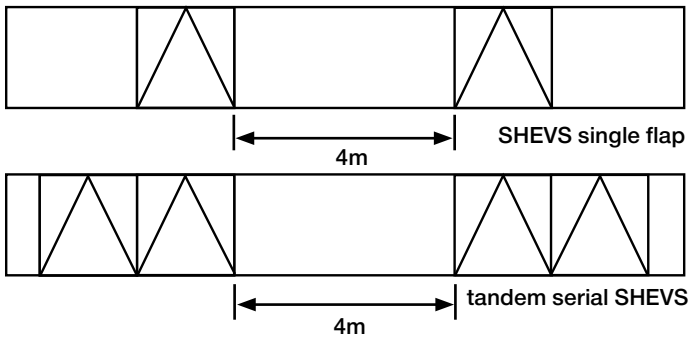
**Smoke Lift SE30 tandem serial SHEVS**
**Example 250/210**

## Maximum stability when open

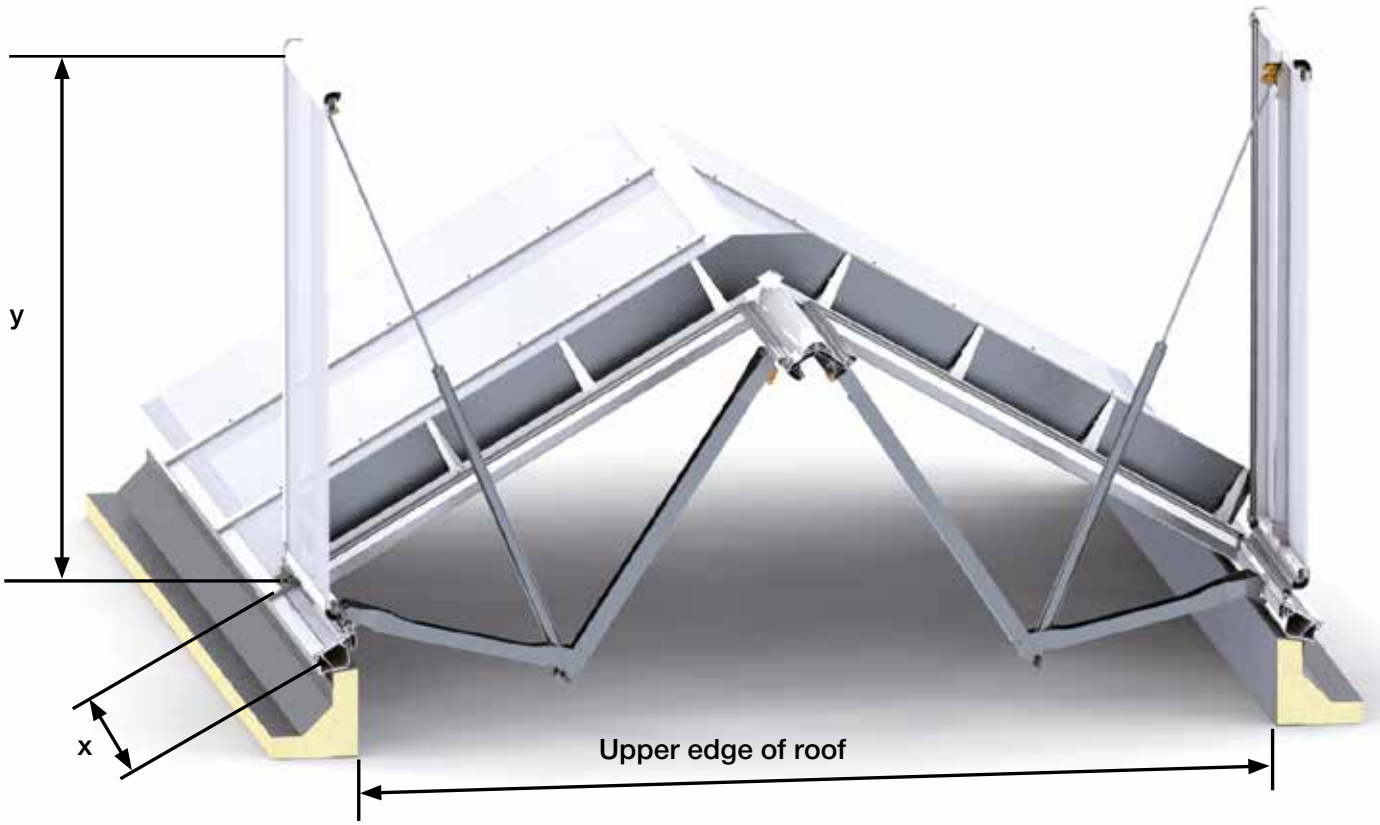
**The SHEV flaps have proven to be an incredibly stable overall system when open and subjected to strong winds, even in the larger sizes.**

## Ventilation function in SHEV devices

**All smoke and heat exhaust ventilators can also be combined with ventilation systems.**



# The Lift Systems
# Sizes and Technical Figures



## CI System Ventilation Lift SE30 Single Flap

(30° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo |
|---|---|---|---|
| 100 | 100 | 53 | 0.53 m² |
| 100* | 120 | 53 | 0.63 m² |
| 150 | 100 | 82 | 0.82 m² |
| 150* | 120 | 82 | 0.97 m² |
| 200 | 100 | 111 | 1.11 m² |
| 200* | 120 | 111 | 1.31 m² |
| 250 | 100 | 140 | 1.40 m² |
| 250* | 120 | 140 | 1.65 m² |
| 300 | 100 | 169 | 1.69 m² |
| 300* | 120 | 169 | 1.99 m² |

## CI System Ventilation Lift SE45 Single Flap

(45° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo |
|---|---|---|---|
| 80 | 100 | 53 | 0.53 m² |
| 80* | 120 | 53 | 0.63 m² |
| 120 | 100 | 82 | 0.82 m² |
| 120* | 120 | 82 | 0.97 m² |
| 160 | 100 | 111 | 1.11 m² |
| 160* | 120 | 111 | 1.31 m² |
| 200 | 100 | 140 | 1.40 m² |
| 200* | 120 | 140 | 1.65 m² |
| 240 | 100 | 169 | 1.69 m² |
| 240* | 120 | 169 | 1.99 m² |

## CI System Ventilation Lift SE-SHED60 Single Flap

(On the 60° northern side)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo |
|---|---|---|---|
| 100 | 100 | 53 | 0.53 m² |
| 100* | 120 | 53 | 0.63 m² |
| 150 | 100 | 82 | 0.82 m² |
| 150* | 120 | 82 | 0.97 m² |
| 200 | 100 | 111 | 1.11 m² |
| 200* | 120 | 111 | 1.31 m² |
| 250 | 100 | 140 | 1.40 m² |
| 250* | 120 | 140 | 1.65 m² |
| 300 | 100 | 169 | 1.69 m² |
| 300* | 120 | 169 | 1.99 m² |

## CI System Smoke Lift SE30 Single Flap

(30° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo | Aerodynamically effective opening surface |
|---|---|---|---|---|
| 100 | 100 | 53 | 0.53 m² | 0.32 m² |
| 100* | 120 | 53 | 0.63 m² | 0.38 m² |
| 150 | 100 | 82 | 0.82 m² | 0.49 m² |
| 150* | 120 | 82 | 0.97 m² | 0.58 m² |
| 200 | 100 | 111 | 1.11 m² | 0.64 m² |
| 200* | 120 | 111 | 1.31 m² | 0.76 m² |
| 250 | 100 | 140 | 1.40 m² | 0.80 m² |
| 250* | 120 | 140 | 1.65 m² | 0.92 m² |
| 300 | 100 | 169 | 1.69 m² | 0.95 m² |
| 300* | 120 | 169 | 1.99 m² | 1.09 m² |

## CI System Smoke Lift SE45 Single Flap

(45° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo | Aerodynamically effective opening surface |
|---|---|---|---|---|
| 80 | 100 | 53 | 0.53 m² | 0.33 m² |
| 80* | 120 | 53 | 0.63 m² | 0.38 m² |
| 120 | 100 | 82 | 0.82 m² | 0.51 m² |
| 120* | 120 | 82 | 0.97 m² | 0.58 m² |
| 160 | 100 | 111 | 1.11 m² | 0.67 m² |
| 160* | 120 | 111 | 1.31 m² | 0.77 m² |
| 200 | 100 | 140 | 1.40 m² | 0.80 m² |
| 200* | 120 | 140 | 1.65 m² | 0.94 m² |
| 240 | 100 | 169 | 1.69 m² | 0.96 m² |
| 240* | 120 | 169 | 1.99 m² | 1.12 m² |

## CI System Smoke Lift SE-SHED60 Single Flap

(On the 60° northern side)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo | Aerodynamically effective opening surface |
|---|---|---|---|---|
| 100 | 100 | 53 | 0.53 m² | 0.32 m² |
| 100* | 120 | 53 | 0.63 m² | 0.38 m² |
| 150 | 100 | 82 | 0.82 m² | 0.49 m² |
| 150* | 120 | 82 | 0.97 m² | 0.58 m² |
| 200 | 100 | 111 | 1.11 m² | 0.64 m² |
| 200* | 120 | 111 | 1.31 m² | 0.76 m² |
| 250 | 100 | 140 | 1.40 m² | 0.80 m² |
| 250* | 120 | 140 | 1.65 m² | 0.92 m² |
| 300 | 100 | 169 | 1.69 m² | 0.95 m² |
| 300* | 120 | 169 | 1.99 m² | 1.09 m² |

**CI System Smoke Lift SE30 Double Flap**

(30° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo | aerodynamically effective opening surface |
|---|---|---|---|---|
| 100 | 100 | 53 | 1.02 m² | 0.64 m² |
| 100* | 120 | 53 | 1.20 m² | 0.75 m² |
| 100 | 200 | 53 | 2.09 m² | 1.27 m² |
| 100 TS** | 420 | 53 | 4.24 m² | 2.42 m² |
| 150 | 100 | 82 | 1.52 m² | 0.96 m² |
| 150* | 120 | 85 | 1.79 m² | 1.11 m² |
| 150 | 200 | 82 | 3.12 m² | 1.90 m² |
| 150 TS** | 420 | 82 | 6.32 m² | 3.48 m² |
| 200 | 100 | 111 | 2.02 m² | 1.25 m² |
| 200* | 120 | 111 | 2.38 m² | 1.48 m² |
| 200 | 200 | 111 | 4.14 m² | 2.57 m² |
| 200 TS** | 420 | 111 | 8.40 m² | 4.96 m² |
| 250 | 100 | 140 | 2.52 m² | 1.54 m² |
| 250* | 120 | 140 | 2.97 m² | 1.84 m² |
| 250 | 200 | 140 | 5.17 m² | 3.21 m² |
| 250 TS** | 420 | 140 | 10.48 m² | 6.50 m² |
| 300 | 100 | 169 | 3.02 m² | 1.84 m² |
| 300* | 120 | 169 | 3.56 m² | 2.21 m² |
| 300 | 210 | 169 | 6.21 m² | 3.85 m² |
| 300* | 240 | 169 | 7.31 m² | 4.53 m² |

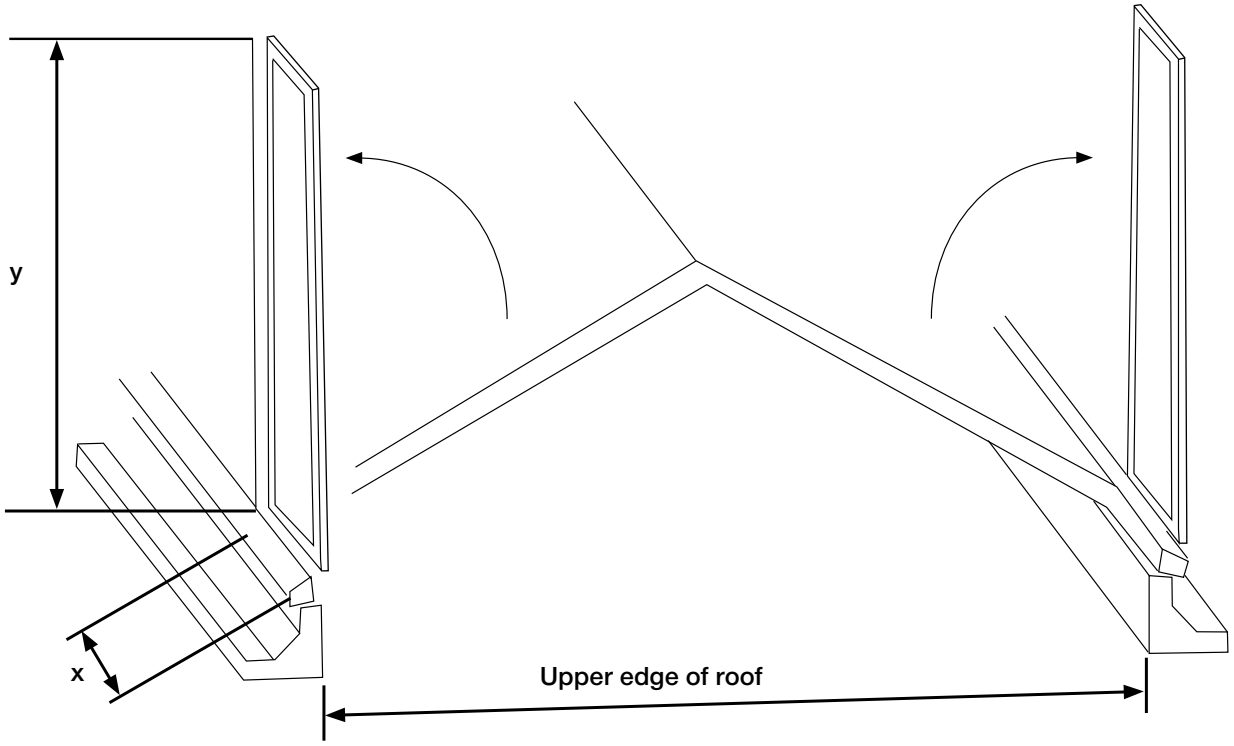
**CI System Smoke Lift SD45 Double Flap**

(45° slope to the glazing surfaces)

| Upper edge of roof size | Dimension x | Dimension y | Opening surface Ageo | Aerodynamically effective opening surface |
|---|---|---|---|---|
| 120 | 100 | 82 | 1.22 m² | 0.94 m² |
| 120* | 120 | 82 | 1.43 m² | 1.09 m² |
| 120 | 200 | 82 | 2.49 m² | 1.84 m² |
| 120 TS** | 420 | 82 | 5.05 m² | 3.54 m² |
| 160 | 100 | 111 | 1.63 m² | 1.25 m² |
| 160* | 120 | 111 | 1.92 m² | 1.46 m² |
| 160 | 200 | 111 | 3.33 m² | 2.47 m² |
| 160 TS** | 420 | 111 | 6.76 m² | 4.39 m² |
| 200 | 100 | 140 | 2.04 m² | 1.51 m² |
| 200* | 120 | 140 | 2.40 m² | 1.68 m² |
| 200 | 200 | 140 | 4.17 m² | 2.71 m² |
| 200 TS** | 420 | 140 | 8.47 m² | 5.08 m² |
| 240 | 100 | 169 | 2.45 m² | 1.71 m² |
| 240* | 120 | 169 | 2.89 m² | 1.90 m² |
| 240 | 210 | 169 | 5.03 m² | 3.02 m² |
| 240* | 240 | 169 | 5.92 m² | 3.49 m² |

* Only in conjunction with glazing type 32-5 ply PC and 32-5 ply PC + GRP

** Tandem serial SHEVS

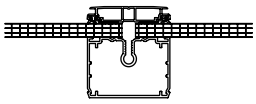


# A wide range of glazing

**Whether it's thermal insulation, sound insulation, light transmission or fire behaviour – the LAMILUX CI System Continuous Rooflight S can adapt beautifully to building-specific requirements with a wide range of glazing options.**

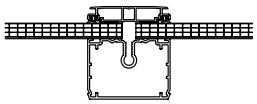
The standard glazing forms multi-layered, opal polycarbonate sheets in thicknesses of up to 32 millimetres. In addition, very sound-insulating and chemically-resistant glazing can be used.

**10-4 ply PC**



| | |
|---|---|
| $U_g$ value | 2.5 W/(m²K) |
| Sound-proofing value, Sound absorption value | 17 dB |
| Building material class | B1 |
| Translucency | approx. 61% |

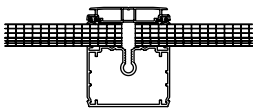
**10-4 ply PC + GRP**



made by

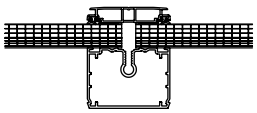
| | |
|---|---|
| $U_g$ value | 2.4 W/(m²K) |
| Sound-proofing value, Sound absorption value | 20 dB |
| Building material class | B2 |
| Translucency | approx. 51% |

**10-4 ply PC + 6-4 ply PC**



| | |
|---|---|
| $U_g$ value | 1.8 W/(m²K) |
| Sound-proofing value, Sound absorption value | 17 dB |
| Building material class | B2 |
| Translucency | approx. 42% |

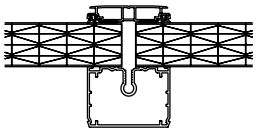
**10-4 ply PC + 6-4 ply PC + GRP**



made by

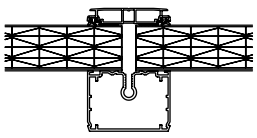
| | |
|---|---|
| $U_g$ value | 1.8 W/(m²K) |
| Sound-proofing value, Sound absorption value | 20 dB |
| Building material class | B2 |
| Translucency | approx. 36% |

**32-5 ply PC**



| | |
|---|---|
| $U_g$ value | 1.2 W/(m²K) |
| Sound-proofing value, Sound absorption value | 18 dB |
| Building material class | B2 |
| Translucency | approx. 38% |

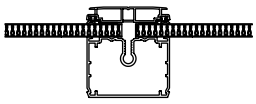
**32-5 ply PC + GRP**



made by

| | |
|---|---|
| $U_g$ value | 1.2 W/(m²K) |
| Sound-proofing value, Sound absorption value | 18 dB |
| Building material class | B2 |
| Translucency | approx. 30% |

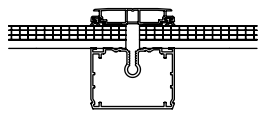
**Composite 10 mm GRP cavity-resist**



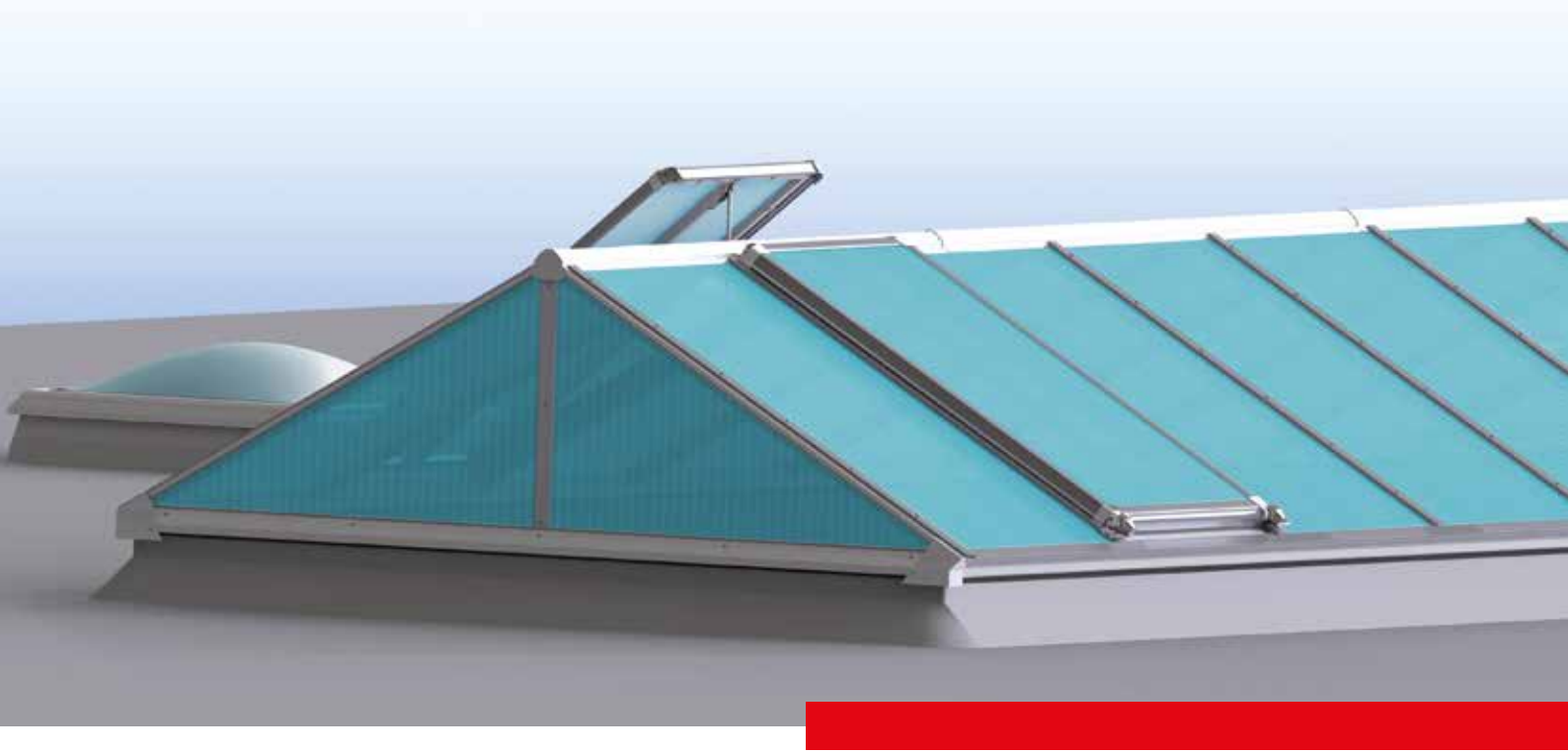
made by

| | |
|---|---|
| $U_g$ value | 3.1 W/(m²K) |
| Sound-proofing value, Sound absorption value | 22 dB |
| Building material class | B2 |
| Translucency | approx. 40% |

**Noise-proofing glazing 16mm 27dB**



| | |
|---|---|
| $U_g$ value | 2.3 W/(m²K) |
| Sound-proofing value, Sound absorption value | 27 dB |
| Building material class | B2 |
| Translucency | approx. 51% |



# Glazing made of glass fibre reinforced plastics

**Composite 10 mm GRP cavity-resist**

**LAMILUX is again at the leading edge of the market with the CI System Continuous Rooflight S wherever it comes to a product's thermal separation and longevity. A new kind of glazing, developed and produced in-house and made of polyester sandwich elements, supports trouble-free integration with the continuous rooflight system.**

**High level of resilience to weathering and UV**

Glazing made of polyester shell elements is highly resistant to UV incidence and weathering due to its special material characteristics.

This continuous rooflight was developed especially for manufacturing environments with a high level of chemical aggressivity below the roof (for example, evaporating cooling lubricants in machining). Brittleness or cracks which chemically aggressive materials could cause in polycarbonates also do not occur in the material in the long term.

The blue translucent gelcoat guarantees an overall level of energy transmission of around 38 per cent.

# The optimum, stable structural mount

Mounting on a steel sheet upstand

Mounting on wooden trusses

**NOTE:** The mounting systems shown in the diagrams are concept drawings for guidance purposes only. The roofing specialist must comply with technical standards for waterproofed roofs, such as flat roof guidelines, when planning and carrying out waterproofing work.

# Proven stability

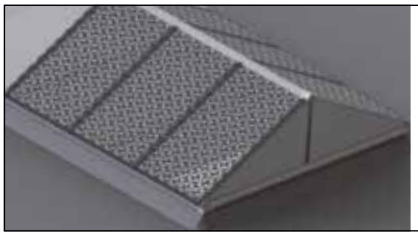
**The LAMILUX CI System Continuous Rooflight S provides roof connection options for steel sheet upstands, laminated timber or reinforced concrete upstands. Verified stability is our primary concern with LAMILUX's own steel sheet upstands.**

LAMILUX adheres rigidly to the requirements of the German Institute for Building Technology, according to which steel plate upstands such as S 280 GD + Z 275 or S 320 GD + Z 275 must be made out of high-quality steel.

# CI System Continuous Rooflight S – much more than standard

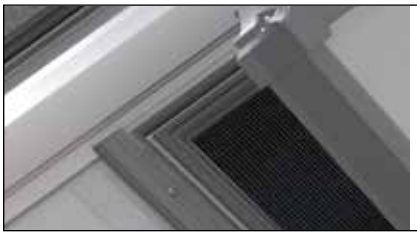
**Fall-through proof grating**

Fall-through proof gratings are permanently fall-through proof in compliance with BG verification certification for clear upturn widths between 1.00 meter to 4.00 meters. Gratings can be mounted onto curved plates, for instance. The plates are bolted onto the frame.



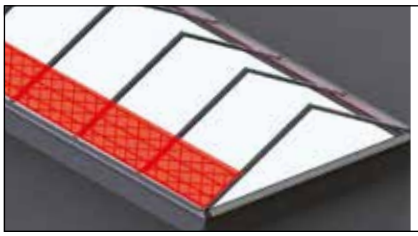
**Sun protection**

A metal screen coated in the RAL colour you require and featuring a deciduous tree effect for natural shade. The perforated steel sheet also provides protection against hail and incidental UV light.



**Insect protection grating**

This protection grating is integrated into the upstand. and ensures that no insects can enter the building interior when the rooflight dome is open.



**LSS – LAMILUX Safety Stripe**

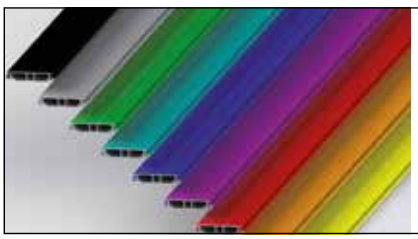
With the integrated LAMILUX Safety Stripe (LSS), permanent fall-through safety in accordance with regulation GS Bau 18 is guaranteed even before installing the glazing, as well as over the entire period the product is in use. The system forms an integrated safety zone in the lower area of the glazing, which provides reliable and permanent fall-through safety whilst remaining unobtrusive.

**Personal Protection Equipment – PPE**

Lanyard rings for personal fall protection fulfil DIN EN 795 Class $A_1$ requirements and are certified by the German Employers' Liability Insurance Association's Safety Technology Centre in Rhineland and Westphalia. The anchors are suitable for mounting on steel sheet frames $t \geq 2$.

**'Hard roofing'**

The CI System Continuous Rooflight S glazing fulfils the conditions for 'hard roofing' and therefore also the requirements for resistance to flying sparks and radiant heat as per DIN 4102 part 7.



**Colouring**

LAMILUX steel sheet upstands and all visible aluminium profiles can be custom coated in RAL colours on request.

# LAMILUX CI SYSTEMS

ROOFLIGHT DOME F100

CONTINUOUS ROOFLIGHT B

LIGHT WALL

GLASS ARCHITECTURE PR60

BUILDING CONTROL SYSTEMS

FRESH AIR SUPPLY DEVICES

GLASS ELEMENT F

CONTINUOUS ROOFLIGHT S

BUILDING UPGRADES

SMOKE AND HEAT EXHAUST SYSTEMS

PHOTOVOLTAICS

FIBRE-REINFORCED PLASTICS

The technical data printed in this brochure was accurate when this brochure went to press and is subject to change without notice. Our technical specifications are based on calculations and supplier specifications, or have been determined by independent testing authorities within the scope of applicable standards.
Thermal transmission coefficients for our composite glazing were calculated using the finite element method with reference values in accordance with DIN EN 673 for insulated glass. Based on empirical values and specific characteristics of the plastics, a temperature vector of 15 K was defined as the vector between the outer surfaces of the material. Functional values refer to test specimens and the dimensions used in testing only. We cannot provide any further guarantees for technical specifications. This particularly applies to changes in installation locations, or if dimensions are re-measured on site.

LAMILUX

**LAMILUX Heinrich Strunz GmbH**
Zehstraße 2 · Postfach 1540 · 95111 Rehau, Germany · Tel.: +49 (0) 92 83 / 5 95-0 · Fax +49 (0) 92 83 / 5 95-29 0
Email: information@lamilux.de · www.lamilux.de

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